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**Contributions to the knowledge of the Quediina
(Coleoptera, Staphylinidae, Staphylinini)
of China. Part 48. Genus *Quedius* STEPHENS, 1829.
Subgenus *Raphirus* STEPHENS, 1829. Section 12.**

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A b s t r a c t : The paper deals with the species of the *Quedius pluvialis*-group of the subgenus *Raphirus* STEPHENS, 1829 of the genus *Quedius*, STEPHENS, 1829. *Quedius nemo* sp. nov. (from Sichuan) and *Quedius egregius* nov. sp. (from Yunnan) are described as new. Each species is described, illustrated and all available distributional data are given. New distributional data are given for *Q. pluvialis* and *Q. schneideri*. A key to the species of the *Quedius pluvialis*-group known at present from mainland China is attached.

K e y w o r d s : Coleoptera, Staphylinidae, Staphylinini, Quediina, *Quedius*, taxonomy, new species, description, geographical distribution, mainland China, Palaearctic Region.

Introduction

This is the forty-eighth of a series of papers dealing with the Quediina of People's Republic of China. It deals with the species of the *Q. pluvialis*-group of the subgenus *Raphirus* STEPHENS, 1829. The *Q. pluvialis*-group is quite distinctive within the subgenus *Raphirus* being characterized by several derived character states (see SMETANA 2010a: 250 for details). It includes at present four species: *Q. pluvialis* SMETANA, 1998 and *Q. oui* SMETANA, 2010 both from Emei Shan, Sichuan, *Q. shunichii* SMETANA, 2010 from Xilingxue Shan, Sichuan, and *Q. schneideri* SMETANA, 2010 from Chongqing, Guangdong and Guizhou. Two additional species are described in this paper, additional distributional data of already described species are given, and a key to the species of the *Q. pluvialis*-group known at present is presented.

Material and methods

The acronyms used in the text when referring to the deposition of the specimens are as follows:

ASC..... Aleš Smetana collection, Ottawa, Canada

SNUC..... Collection of the Department of Biology, Shanghai Normal University, Shanghai, People's Republic of China

The measurement ratios given in the descriptions are average values when more than one specimen was available. Label data for holotypes and allotypes are quoted exactly as they appear on the label.

Descriptions and additional records

Quedius (Raphirus) nemo nov.sp. (Figs 1-5)

Type locality. CHINA: Sichuan, Erlang Shan, 29°32'N 102°18'E, 2200-2300m.

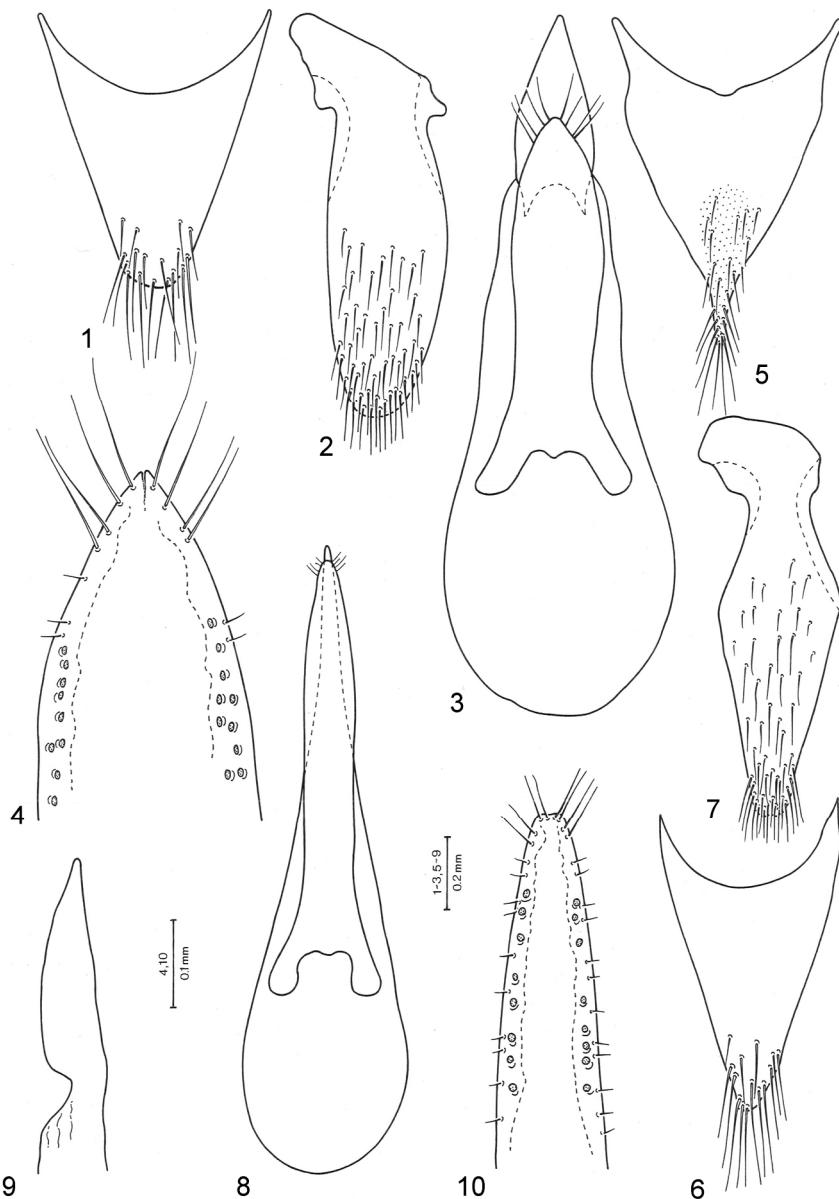
Type material. Holotype (male): CHINA: "China: Sichuan Prov. Erlangshan Mt. 29°32'N, 102°18'E, alt. 2200-2300m 13- VII-2012 PENG, DAI & YIN leg.", in SNUC. Allotype (female): CHINA: "China: Sichuan Prov. Tianquan County Erlangshan Mt. Yakou, 3.6 km 29°31'N, 102°17'E alt. 2600-2800 m 11.VII. 2012 PENG, DAI & YIN leg.", in SNUC. Paratypes: same data as holotype, 1♂ (ASC).

Description. In all characters similar to *Q. shunichii* SMETANA, 2010, but different by a few external characters, and particularly by the differently shaped aedeagus. Average size larger, coloration darker: entirely piceous-black, antennae black with last segment and sometimes first two segments paler, legs piceous-black with somewhat paler tarsi.

Male. First four segments of front tarsus markedly dilated, slightly more so than those of *Q. shunichii*, each densely covered with tenent setae ventrally, segment 2 wider than apex of tibia (ratio 1,20) segment 4 narrower than preceding two segments. Sternite 5 with apical margin truncate in middle and in front of it with large medial field of denser punctures and setae, extending to base of sternite; sternite 6 with apical margin slightly, widely concave, with large medial subtriangular area in front it depressed and densely punctate and setose, delimited at each lateral margin by densely set, long stiff setae; sternite 7 with modification similar to that on sternite 6, except that the depressed and densely punctate and setose area is markedly more extensive; sternite 8 with wide and deep obtusely rounded medioapical emargination, large area, narrow at the emargination, but markedly widened and extended to the base of sternite depressed and densely punctate and pubescent. Genital segment with tergite 10 markedly narrowed toward broadly arcuate apex, with numerous setae at and near apical margin, otherwise asetose (Fig. 1); sternite 9 with characteristic, sharply delimited basal portion, apical portion arcuate apically, setose as in Fig. 2. Aedeagus (Figs 3, 4) similar to that of *Q. shunichii*, but in general more robust; anterior characteristic plate of median lobe is wider and paramere is markedly more robust and of widely fusiform shape, whereas it is narrower and more or less parallel-sided in *Q. shunichii* (Figs 3,4, and Fig. 3 in SMETANA 2010: 251).

Female. First four segments of front tarsus only slightly dilated, vaguely subbilobed, each with a few tenent setae ventrally, segment two narrower than apex of tibia (ratio 0.72); segment four narrower than preceding segments. Genital segment with second gonocoxites long and narrow, each with extremely minute stylus bearing one long, strong seta; tergite 10 markedly narrowed, apically attenuated into moderately long, dagger-like apical portion; apical portion and medial portion of tergite in front of it pigmented; setae present on dagger-like apical portion and for some distance medially in front of it (Fig. 5).

Length 10.0-10.5 mm.



Figs 1-10: 1-5. *Quedius nemo* nov.sp.: (1) tergite 10 of male genital segment; (2) sternite 9 of male genital segment; (3) aedeagus, ventral view; (4) underside of apical portion of paramere; (5) tergite 10 of female genital segment. 6-10. *Quedius egregius* nov.sp. (6) tergite 10 of male genital segment; (7) sternite 9 of male genital segment; (8) aedeagus, ventral view; (9) apical portion of median lobe of aedeagus, lateral view; (10) underside of apical portion of paramere.

E t y m o l o g y . The specific epithet is the Latin noun *nemo*, m. (nobody) in apposition.

G e o g r a p h i c a l d i s t r i b u t i o n . *Quedius nemo* is at present known only from Erlang Shan in Sichuan.

B i o n o m i c s . Nothing is known about the collecting circumstances of the specimens of the original series.

R e c o g n i t i o n a n d c o m m e n t s . *Quedius nemo* may be distinguished from the closely related and similar *Q. shunichii* by the characters mentioned above. The male sexual characters on the abdominal sternites are similar in both species, but they are distinctly more pronounced on sternites in *Q. nemo*, particularly the depressions on sternites 6 and 7 being deeper and the setae delimiting them laterally being more numerous and longer.

Quedius (Raphirus) egregius nov.sp. (Figs 6-10)

T y p e l o c a l i t y . CHINA: Yunnan, Nabanhe Nature Reserve, Huazhulianshan, Bennganghani, 2300 m.

T y p e m a t e r i a l . Holotype (male): CHINA: "China: Yunnan Prov. Nabanhe N. R. Huazhulianshan / Bennganghani alt. 2300 m, 29-V-2009 Jia-Jao Hu & Zi-Wei Yin leg.". In SNUC.

D e s c r i p t i o n . In all characters similar to *Q. schneideri* SMETANA, 2012, but different by some external characters, and by the differently shaped aedeagus. Body more slender than in average specimens of *Q. schneideri*; pronotum less voluminous; scutellum relatively coarsely, extensively punctate (with a few fine punctures in *Q. schneideri*), elytra relatively longer, at sides as long as pronotum at midline (shorter than pronotum at midline in *Q. schneideri*, ratio 0.87), and more coarsely punctate; abdominal tergite 2 (in front of first entirely visible tergite) entirely glabrous (with some punctures on apical portion in *Q. schneideri*), tergite 7 (fifth visible) with fine apical seam of palisade setae (seam missing in *Q. schneideri*).

Male. First four segments of front tarsus markedly dilated, slightly less so than those of *Q. schneideri*, each densely covered with tenent setae ventrally, segment 2 about as wide as apex of tibia, segment 4 narrower than preceding two segments. Abdominal sternite 5 without male secondary sexual characters; sternite 6 with apical margin not modified, but medial portion with narrow area of dense punctuation and pubescence, extending from near base to near apical margin; sternite 7 with slight medioapical sinuation, area before it impunctate, followed by narrow medial area of denser and finer punctuation and pubescence; sternite 8 with wide and deep, obtusely triangular medioapical emargination, moderately large triangular area before emargination depressed and smooth. Genital segment with tergite 10 narrow, markedly narrowed toward subacute apex, with numerous setae at and near apical margin, otherwise asetose (Fig. 6); sternite 9 with large, characteristic, sharply delimited basal portion, apical portion subarcuate apically, setose as in Fig. 7. Aedeagus (Figs 8-10) similar to that of *Q. schneideri*, but dagger-like apical portion shorter; paramere longer, with subacute apex reaching close to apex of median lobe; four fine apical setae and a pair of similar setae at each lateral margin below apex; sensory peg setae on underside of paramere more numerous (8 and 9), arranged into longitudinal row along each lateral margin of apical portion of paramere (Figs 8,10, and Figs 10 and 12, in SMETANA 2012: 307, 311).

Female unknown.

Length 10.5 mm.

E t y m o l o g y . The specific epithet is the Latin adjective *egregius*, -a, -um (distinguished, eminent). It refers to the two unique character states of the species.

G e o g r a p h i c a l d i s t r i b u t i o n . *Quedius egregius* is at present known only from the type locality in southern Yunnan (coordinates: 22°10'N 100°38'E).

B i o n o m i c s . Nothing is known about the collecting circumstances of the holotype.

R e c o g n i t i o n a n d c o m m e n t s . *Quedius egregius* is a species distinctive from all remaining members of the *Pluvialis*-group based on the external characters listed at the beginning of the description above. The two characters: the entirely glabrous abdominal tergite 2, and the presence of a fine apical seam of palisade setae at the apical margin of abdominal tergite 7 are most conspicuous.

The aedeagus of *Quedius egregius* is to some extent also similar to that of *Q. oui* SMETANA, 2010, but the ventral lamina of median lobe is much shorter, the apex of paramere does not reach as close to apex of median lobe, and the sensory peg setae on underside are more numerous in *Q. oui*.

***Quedius (Raphirus) pluvialis* SMETANA, 1998**

pluvialis SMETANA, 1998: 99 (*Quedius*; subgenus *Raphirus*; description; habitat)

N e w r e c o r d . CHINA: S i c h u a n : Emei Shan, Leidongping, 2400 m, 27.VII.2009, He & Tang leg., 1 spec. (SNUC); Emei Shan, Xixiangchi, 1.5 km, 29°33'N 103°23'E, 2000-2300 m, 23.VII.2013, Peng, Dai & Yin leg., 1 spec. (SNUC); Emei Shan, Jieyin Palace, 0.7 km, 29°32'N 103°20'E, 2500-2600 m, 18.VII.2012, Peng, Dai & Yin leg., 4 spec. (ASC, SNUC).

C o m m e n t s . No information about the collecting circumstances of the specimens are available. The species is until now known only from Emei Shan; it appears to be endemic to that mountain range.

***Quedius (Raphirus) schneideri* SMETANA, 2012**

schneideri SMETANA, 2012: 309 (*Quedius*; subgenus *Raphirus*; description; habitat)

N e w r e c o r d s . CHINA: G u i z h o u : Guizhou Prov., Suiyang County, Kuan Kuoshui N. R., Gongtonggou, alt. 1530-1550 m, 07-08-2010, Lu, Yin & Zhai leg., 9 spec. (ASC, SNUC); same data, but 1550 m, 9-VI-2010, Yin, Zhai & Lu leg., 3 spec. (SNUC); Zunyi City, Suiyang, Kuankushui N. R., Houshan, alt. 1550 m, 15.VIII. 2010, Yin Z.W. leg., 1 spec. (SNUC). G u a n d o n g : Guangdong prov., Longmen County, Taiyangshan Mt., 16-VIII-2010, Liang Tang leg., 1 spec. (SNUC).

C o m m e n t s . No information about the collecting circumstances of the specimens are available. These are the first records of the species from Guangdong and Guizhou.

Key to the species of the *Quedius pluvialis* group

- 1 Abdominal tergite 2 (in front of first fully visible tergite) glabrous; abdominal tergite 8 (fifth visible) with apical seam of palisade setae. Aedeagus as in Figs 8-10. Length 10.5 mm *Q. egregius* nov.sp.
- Abdominal tergite 2 (in front of first fully visible tergite) entirely punctate and pubescent, or at least with punctures on apical part; abdominal tergite 8 (fifth visible) lacking apical seam of palisade setae 2
- 2 Apical portion of median lobe of aedeagus dagger-like, without elongate lamina ventrally (lateral view, Fig. 13 in SMETANA 2010: 253). Additional puncture between posterior frontal puncture and puncture at posterior margin of head present (rarely missing unilaterally). Length 8.0-8.8 mm *Q. pluvialis* SMETANA, 1998

- Apical portion of median lobe of aedeagus lancet- or dagger-like, but if dagger-like then with elongate lamina ventrally (lateral view, Fig. 7 in SMETANA 2010: 251; Fig. 11 in SMETANA, 2012:311). Additional puncture between posterior frontal puncture and puncture at posterior margin of head absent (rarely present unilaterally) 3
- 3 Apical portion of median lobe of aedeagus dagger-like (Fig. 8) 4
- Apical portion of median lobe of aedeagus lancet-like (Fig. 3; Fig. 3 in SMETANA 2010a: 251) 5
- 4 Male secondary sexual characters present on abdominal sternite 6. Ventral lamina of median lobe relatively short (Fig. 7 in SMETANA 2010a: 151). Length 9.0-10.2 mm *Q. oui* SMETANA, 2010
- Male secondary sexual characters absent from abdominal sternite 6. Ventral lamina of median lobe very long (Fig. 11 in SMETANA 2012d: 311). Length 9.5-10.5 mm *Q. schneideri* SMETANA, 2012
- 5 Aedeagus large and robust, paramere widely fusiform (Fig. 3). Length 10.0-10.5 mm *Q. nemo* nov.sp.
- Aedeagus markedly smaller and less robust, paramere narrow, more or less parallel-sided (Fig. 3 in SMETANA 2010a: 251). Length 8.5-9.2 mm *Q. shunichii* SMETANA, 2010

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Zusammenfassung

Quediush (Raphirus) nemo nov.sp. (Sichuan) und *Quediush (Raphirus) egregius* nov.sp. (Yunnan) werden beschrieben und abgebildet. Eine Bestimmungstabelle der Arten der *Q. pluvialis*-Gruppe wird erstellt. Weitere Nachweise von zwei Arten werden gemeldet.

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